

Product datasheet for **MC200577**

P4hb (NM_011032) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	P4hb (NM_011032) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	P4hb
Synonyms:	ERp59; PDI; Pdia1; Thbp
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC008549 sequence for NM_011032
 CTTGACTGTTCCGGCGCGCAACCCAACCTGCCCGCCCGCTGCAGACGTCCGACATGCTGAGCCGTGCT
 TTGCTGTGCCCTAGCCCTGGCCTGGGCGGCTAGGGTGGGCGCCGACGCCCTGGAGGAGGAGGACAACGTCC
 TGGTGTGAAGAAGAGCAACTTCGAGGAGGCGCTGGCGGCGCACAAAGTACCTGCTGGTGGAGTTCTATGC
 CCCGTGGTGTGGCCACTGCAAAGCTCTGGCTCCCGAGTATGCCAAAGTGCCGAAAACCTGAAGGCAGAA
 GGCTCTGAGATTCGACTAGCAAAGGTGGATGCCACAGAAGAGTCTGACCTGGCTCAGCAGTATGGTGTCC
 GTGGCTACCCCAACATCAAGTTCTTCAAGAATGGAGACACAGCCTCCCAAGGAATATACAGCTGGCAG
 GGAAGCTGATGACATTGTCAACTGGCTGAAGAAACGCACGGGCCAGCAGCTACAACCCTGTCTGACACT
 GCAGCTGCAGAGTCCCTGGTGGACTCAAGCGAAGTGACGGTCATCGGTTTCTTCAAGGACGTAGAGTCAG
 ACTCTGCCAAGCAGTTCTTGCTGGCAGCAGAGGCTATTGATGACATACCTTTTGAATCACGTCCAACAG
 TGGTGTGTTCTCCAAGTACCAGCTGGACAAAGATGGGGTGGTCTCTTTAAGAAGTTTGTGAAGGCCGC
 AACAACTTTGAGGGTGAATCACCAAGGAGAAGCTTCTAGACTTCATCAAGCACAACCAGCTGCCTTTGG
 TCATCGAGTTCACTGAACAGACAGCTCCGAAGATTTTTGGAGGTGAGATCAAGACACACATTCTGCTGTT
 CCTGCCAAGAGTGTATCTGACTATGACGGCAAGCTGAGCAGCTTCAAGAGAGCAGCCGAGGGCTTCAAG
 GGCAAGATCCTATTTATCTTCATCGATAGCGACCACACTGATAACCAGCGCATACTTGAGTTCTTTGGCC
 TGAAGAAGGAGGAGTGTCCCGCCGTGCGCTTATTACCCTAGAGGAAGAGATGACCAAGTACAAACCAGA
 GTCAGATGAGCTGACGGCTGAGAAAATCACAGAGTTTTGCCACCCTTCTTAGAGGGCAAGATCAAGCCC
 CACCTGATGAGCCAGGAAGTGCCTGAAGACTGGGACAAACAGCCGGTAAAAGTACTGGTTGGGGCGAACT
 TTGAAGAGGTGCTTTTGTGAGAAAAAGAACGTGTTTGTGAATTCTATGCCCTTGGTGTGGTCACTG
 CAAGCAGCTAGCCCCATTTGGGATAAACTGGGAGAGACATAAAGGATCATGAGAATATCATCATTGCT
 AAGATGGACTCAACAGCCAATGAGGTGGAAGCTGTCAAAGTACATAGCTTTCCACACTGAAGTTCTTCC
 CAGCAAGTGCAGACAGAACGGTCAATTGATTACAATGGCGAGCGGACACTGGACGGTTTTAAGAAATCTT
 GGAGAGTGGTGGCCAGGATGGAGCAGGGGACGATGAGGACCTCGACCTAGAAGAAGCTTTAGAGCCAGAC
 ATGGAGGAAGACGACGATCAGAAAAGCTGTGAAGGATGAAGTGTAGTGCAGAAGCCAGATCTGGGCGCCTG
 AACCCAAAACCTCGTGGGCCACGCTCCAGCAGCCACATCTCCGAGCCTGAACCTCACCCAGGAGG
 GAGCGCCATCAGAACCCAGGGAATCTTTCTGAAGCCACACTCATCTGACACACGTACACTTAGACCTGTC
 TCTTCTTTGCTTTTCAATTTTGGAAAGGGATCTCTGTCCAGGTGAGCCCTCTTGAAGGGCTACCTTTT
 GTTTAATTGGTGGTGTACTTTTTGTATGTGGAATTTGTCCATGTGCTTGCTAAAATGTTTGGGGATC
 TCCTCACACTGGTAATGTCTTCTGTTAGAGAGGTTTATGCTACCCTTCGCATTTTCTGTGAGGCA
 TTTTCTTTTGTAGACATGCTTTCATGTCCAGCTACTTGTTCACCATGGCAGACCTCCCTGAGCCTTCTT
 CCTGCCCTGGGTAGGAAGTGTGGCTCTGGGTCTGTGGTCACTCTCCACCTTGCTCCTAGTGTGCCATGGT
 AGCATGGCTTTGTAGTTGCATTTAACCTGGGGATCTATGCATCCTGTCAAGAGGGTGGTCCCGTCCC
 CGTGTGTGAAAAGAGACAGTGTGGCTTGTGCCAGGCTCAGGCCAGGTCTGGACAGCTCTCACTCTCT
 CAAGCCAGGACTACCGACCAGCCGGCTATGGGCACACTTCTGTGGTCTGGATTCTTTTCCAGCATG
 GCCTGTGGCCTGTGTGAGGCAGAACTGGGACCCTTGATTTCCAGATTGGGAGTCAGCCAAGGACACTGGG
 GCTGAATGAAATGCCATTCTTCAGGCATTTCTACCATAATATTGGAATTGAACACATTGGCTAAATAAA
 GTTGAATTTTAAAAAAAAAAAAAAAA

- Restriction Sites:** RsrII-NotI
- ACCN:** NM_011032
- Insert Size:** 1530 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [BC008549](#), [AAH08549](#)

RefSeq Size: 2476 bp

RefSeq ORF: 1530 bp

Locus ID: 18453

UniProt ID: [P09103](#)

Cytogenetics: 11 84.27 cM

Gene Summary: This multifunctional protein catalyzes the formation, breakage and rearrangement of disulfide bonds. At the cell surface, seems to act as a reductase that cleaves disulfide bonds of proteins attached to the cell. May therefore cause structural modifications of exofacial proteins. Inside the cell, seems to form/rearrange disulfide bonds of nascent proteins. At high concentrations, functions as a chaperone that inhibits aggregation of misfolded proteins. At low concentrations, facilitates aggregation (anti-chaperone activity). May be involved with other chaperones in the structural modification of the TG precursor in hormone biogenesis. Also acts a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP (By similarity). Receptor for LGALS9; the interaction retains P4HB at the cell surface of Th2 T helper cells, increasing disulfide reductase activity at the plasma membrane, altering the plasma membrane redox state and enhancing cell migration (PubMed:21670307).[UniProtKB/Swiss-Prot Function]